satisfactory composition, shelf-life and stability.

§ 58.524

#### OPERATIONS AND OPERATING PROCEDURES

#### §58.521 Pasteurization and product flow.

(a) The skim milk used for the manufacture of cottage cheese shall be pasteurized not more than 24 hours prior to the time of setting by heating every particle of skim milk to a temperature of 161 °F. for not less than 15 seconds or by any other combination of temperature and time giving equivalent results. All skim milk must be cooled promptly to setting temperature. If held more than two hours between pasteurization and time of setting, the skim milk shall be cooled and held at 45 °F. or lower until set.

(b) Cream or cheese dressing shall be pasteurized at not less than 150 °F. for not less than 30 minutes or at not less than 166 °F. for not less than 15 seconds or by any other combination of temperature and time treatment giving equivalent results. Cream and cheese dressing shall be cooled promptly to 40 °F. or lower after pasteurization to aid in further cooling of cottage cheese curd for improved keeping quality

(c) Reconstituted nonfat dry milk for cottage cheese manufacture need not be re-pasteurized provided it is reconstituted within two hours prior to the time of setting using water which is free from viable pathogenic or otherwise harmful microorganisms as well as microorganisms which may cause spoilage of cottage cheese. Skim milk separated from pasteurized whole milk need not be re-pasteurized provided it is separated in equipment from which all traces of raw milk from previous operations have been removed by proper cleaning and sanitizing.

#### § 58.522 Reconstituting nonfat dry

Nonfat dry milk shall be reconstituted in a sanitary manner.

# §58.523 Laboratory and quality con-

(a) Quality control tests shall be made on samples as often as necessary to determine the shelf-life and stability of the finished product. Routine analyses shall be made on raw materials and finished product to assure

- (b) Frequency of sampling—(1) Microbiological. Samples of raw milk for testing shall be taken as prescribed in §58.135. Representative samples shall be taken of finished cottage cheese and from each lot or batch of product used as an ingredient. For keeping quality tests representative samples shall be taken of finished cottage cheese;
- (2) Chemical—(i) Milkfat and Moisture. Representative samples shall be taken of cottage cheese; dry cottage cheese shall be tested for moisture only.
- (ii) pH. Representative samples shall be taken of finished cottage cheese.
- (c) Test methods—(1) Microbiological. Microbiological determinations shall be made for coliform, psychrotrophic and yeasts and molds. These tests shall be made in accordance with the methods described in the latest edition of Standard Methods for the Examination of Dairy Products, published by the American Public Health Association.

(2) Chemical. Chemical analysis shall be made in accordance with the methods described in the latest edition of Official Methods of Analysis of the Association of Official Analytical Chemists, published by the Association of Official Analytical Chemists, the latest edition of Standard Methods for the Examination of Dairy Products, or by other methods giving equivalent results.

### §58.524 Packaging and general identification.

- (a) Containers. Containers used for packaging cottage cheese shall be any commercially acceptable multiple use or single service container or packaging material which will satisfactorily protect the contents through the regular channels of trade without significant impairment of quality with respect to flavor, or contamination under normal conditions of handling. Caps or covers which extend over the lip of the container shall be used on all cups or tubs containing two pounds or less, to protect the product from contamination during subsequent handling.
- (b) Packaging. The cheese shall be packaged in a sanitary manner and automatic filling and capping equipment shall be used on all small sizes.

# 137

#### § 58.525

The containers shall be checked weighed during the filling operation to assure they are filled uniformly to not less than the stated net weight on the container. Also care shall be taken that the cottage cheese be of uniform consistency at the time of packaging to assure legal composition in all packages.

(c) General identification. Bulk packages containing cottage cheese shall be adequately and legibly marked with the name of the product, net weight, name and address of the manufacturer, lot number, code or date of packaging and any other identification as may be required. Consumer size packaged products shall meet the applicable regulations of the Food and Drug Administration.

## §58.525 Storage of finished product.

Cottage cheese after packaging shall be promptly stored at a temperature of 45 °F. or lower to maintain quality and condition until loaded for distribution. During distribution and storage prior to sale the product should be maintained at a temperature of 45 °F. or lower. The product shall not be exposed to foreign odors or conditions such as drippage or condensation that might cause package or product damage. Packaged cottage cheese shall not be placed directly on floors.

REQUIREMENTS FOR COTTAGE CHEESE BEARING USDA OFFICIAL IDENTIFICATION

# §58.526 Official identification.

(a) Only cottage cheese manufactured and packaged in accordance with the requirements of this part and with the applicable requirements in subpart A of this part which has been officially inspected in process and found to be in compliance with these requirements may be identified with the official USDA Quality Approved Inspection Shield.

(b) Nonfat dry milk. Nonfat dry milk, when used in cottage cheese bearing official identification, shall meet the requirements for U.S. Extra Grade (Spray Process), at time of use, and should be of U.S. Low Heat Classification (not less than 6.0 mg. undenatured whey protein nitrogen per gram of non-

fat dry milk). In addition, the nonfat dry milk shall have a direct microscopic count not exceeding 75 million per gram. The age of the nonfat dry milk shall be covered by a USDA grading certificate, evidencing compliance with quality requirements, dated not more than 6 months prior to use of the dry milk. In the interim between manufacture and use, the nonfat dry milk shall be stored in a clean, dry, verminfree space. In any case, if the nonfat dry milk is more than 120 days old, at time of use, it shall be examined for flavor to make certain that it meets the requirements for U.S. Extra Grade.

# §58.527 Physical requirements.

(a) Flavor. The cottage cheese shall possess a mild pleasing flavor, similar to fresh whole milk or light cream and may possess the delicate flavor and aroma of a good lactic starter. The product may possess to a slight degree a feed, acid, or salty flavor but shall be free from chalky, bitter, utensil, fruity, yeasty, or other objectionable flavors.

(b) Body and texture. The curd particles shall have a meaty texture, but sufficiently tender to permit proper absorption of cream or cheese dressing. The texture shall be smooth and velvety and shall not be mealy, crumbly, pasty, sticky, mushy, watery, rubbery or slimy or possess any other objectionable characteristics of body and texture. Small curd style (cut with ¼ inch knives) should have curd particles approximately ¼ inch or less in size. Large curd style (cut with knives over ¼ inch) should have curd particles approximately ¾ inch or more in size.

(c) Color and appearance. The finished cottage cheese, creamed or plain curd, shall have an attractive natural color and appearance with curd particles of reasonably uniform size. The creamed cottage cheese shall be uniformly mixed with the cream or dressing properly absorbed or adhering to the curd so as to prevent excessive drainage.

#### § 58.528 Microbiological requirements.

Compliance shall be based on 3 out of 5 consecutive samples taken at the time of packaging.

(a) Coliform. Not more than 10 per gram.